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GUIDANCE AND ELEMENTARY SCHOOL CLIMATE.

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THIS STUDY WAS DESIGNED TO EVALUATE THE DEVELOPMENTAL PROGRESS OF CHILDREN IN AN UNGRADED PRIMARY SCHOOL PROGRAM. THE EXPERIMENTAL SUBJECTS WERE SIX GROUPS OF CHILDREN WHO WERE COMPARED WITH STUDENTS IN THE SAME SCHOOL OPERATING IN A TRADITIONAL GRADED SYSTEM. DATA WERE GATHERED THROUGH (1) TEACHER OBSERVATION OF PUPIL HEALTH AND BEHAVIOR SYMPTOMS, (2) PUPILS MATURATION BASED ON PHYSICAL EXAMINATIONS AND X-RAYS, (3) TESTS ON INTELLIGENCE, ACHIEVEMENT, APTITUDES, AND INTERESTS, AND (4) CASE CONFERENCES WITH PARENTS AND TEACHERS. THE CONCLUSIONS DRAWN IN ACADEMIC ACHIEVEMENT WERE--(1) ARITHMETIC WAS SIGNIFICANTLY BETTER IN CONVENTIONALLY GRADED SCHOOLS, (2) THERE WAS NO DIFFERENCE IN SPELLING, (3) BOTH GROUPS ACQUIRED THE SAME AMOUNT OF GENERAL INFORMATION, AND (4) WORD FLUENCY WAS SUPERIOR IN THE EXPERIMENTAL GROUP. THE DATA WERE NOT EXTENSIVE, BUT THERE WAS EVIDENCE TO SUPPORT THE HYPOTHESIS THAT THE SCHOOL CLIMATE WHICH IS GUIDANCE ORIENTED AND DOES NOT HAVE ARTIFICIALLY IMPOSED GRADE NORMS TENDS TO PRODUCE STUDENTS WHO HAVE A MORE REALISTIC CONCEPT OF THEIR OWN CAPABILITY IN SCHOOL-ASSOCIATED TASKS. (GC)

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***Guidance and
Elementary School Climate***

by
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STATE DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF CHILD DEVELOPMENT AND GUIDANCE
DOVER, DELAWARE

1961

U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

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Preface

The project was begun in the summer of 1957 under a grant from the Cooperative Research program of the U. S. Office of Education. Essentially, it has been a field study in social psychology.

Goodlad and Anderson in their analysis of the non-graded elementary school concluded that "the process of non-grading lays bare long-standing educational problems." (p. 216) Work in the area of developmental guidance has raised the possibility that it might offer help for dealing with some of these educational problems.

During the years that this research was conducted, the experimental school operated on a non-graded plan which began slowly with regrouping of children in reading; moved into a rigid departmentalization and homogeneous grouping of all children in the areas of reading, arithmetic, and language during the end of the second and beginning of the third year; moved back to groups more closely associated with reading late in the third year; and at the beginning of the fourth year returned to a self-contained, graded classroom form of organization.

Guidance practices were developed to meet the needs of the situation as various administrative procedures of grouping and scheduling were inaugurated. Much of the data which was gathered and many of the procedures which are discussed in this report pertain especially to the period of rigid departmentalization and grouping. Results for the entire period of research were certainly influenced by that particular period. During that time departmentalization of reading, arithmetic, language, social studies, and science was done on 12 levels for each subject. Children were placed in R-A-L levels on the basis of their achievement in the subject areas. Age of the child, ability of the child, and size of the group were specifically disregarded as criteria in grouping. As the 1959-1960 school year began, children were grouped as shown on the following page:

Number of Children in R-A-L Level Groups, by Year in School

Level	1	2	3	4	5	6	7	8	9	10	11	12
Reading												
1st Year	11	29	19	11								
2nd Year		2	6	21	11	9	10	3				
3rd Year			1	1	11	16	12	16	2	2		
4th Year					3	2	4	6	11	10	5	6
5th Year						1	0	5	14	15	12	10
Arithmetic												
1st Year	12	17	17	15								
2nd Year		2	5	18	16	13	1	5	2			
3rd Year			2	3	11	8	22	9	4	1	1	
4th Year						2	5	8	6	11	8	7
5th Year						1	3	4	13	13	13	10
Language												
1st Year	12	22	18	9								
2nd Year		3	4	22	10	13	6	4				
3rd Year			2	3	10	9	21	10	5	0	1	
4th Year				1	0	2	5	5	8	14	6	6
5th Year						2	0	10	13	13	10	9

Acknowledgments

One must always be indebted to a school which will try something new and at the same time is willing to allow research data to be gathered and a report made on what happens. To the very hard-working and remarkably adaptable teaching staff in the experimental school we owe a special heartfelt thanks, as well as to the children who so cheerfully shared their thoughts with us and so willingly allowed themselves to be measured and evaluated.

To Dr. Martha Heffernen who originated this research and directed the project for the first part of its operation thanks are due for much painstaking foundation work.

The second director is greatly indebted to Dr. Ruth Strang and the late Dr. Irving Lorge, who although never officially involved as consultants for the project, gave so freely of their time and thinking in discussions of self-concepts, levels of aspiration, and IBM record keeping and data processing procedures as related to guidance. They served both as sources of inspiration and as realistic critics in the broader theoretical aspects of the work.

Grace Bossard, research assistant on the project, and Arlene Rieger, our Girl Friday at the project office, aided greatly in conducting the study and in editing this manuscript. To Cecil DeSoto we are indebted for our cover design à la Magritte!

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Chapter

1

School Climate

Guidance and the guidance point of view in schools involves not only psychological factors relating to individuals and how they learn but also sociological factors relating to the individual's relationship with the environment in which much of this learning is to take place. "A basic sociological principle involved in the guidance point of view is that learning is more effective when an individual is in a social situation where he feels comfortable" (5).

"Individual differences" has long been a by-word for guidance workers as well as for most people involved in education. That individuals change and have different needs as time goes along, that the group environment is a dynamic factor both in determining and in meeting the needs of individuals, and that individuals with their own self-concepts have an active role in this whole situation has had somewhat less attention by guidance personnel and in many cases is recognized scarcely at all by teachers dealing directly with children in classroom groups.

Sherif's (6) studies of social norms and the work of Deutsch and Gerard (1) dealing with pressure to conform to the group and pressure to be yourself are pertinent in the elementary school. School is a group situation. Placing youngsters in grades as we have them in our schools involves putting them in a situation where certain social and educational norms have already been established. Being evaluated in the light of how well they conform to these pre-established norms becomes one of the facts of life for all American children between the ages of 6 and 16 — or longer.

In view of this we set out "to foster by means of an elementary developmental guidance program, a learning environment consistent

with each child's potential well-being"(2). It was hypothesized that "children in an ungraded primary system, whose differences were taken into account and provided for through refined guidance techniques will progress more satisfactorily than in the traditional graded system"(2). Retroactive and concurrent control groups were used to evaluate progress. Establishing a "descriptive and practical pupil record keeping system" through IBM data processing was part of the plan.

The Setting

A school district with an "average" student population adjacent to the city of Wilmington in the northern part of Delaware was chosen for this study. The district has a total student enrollment of approximately 2400, divided as follows:

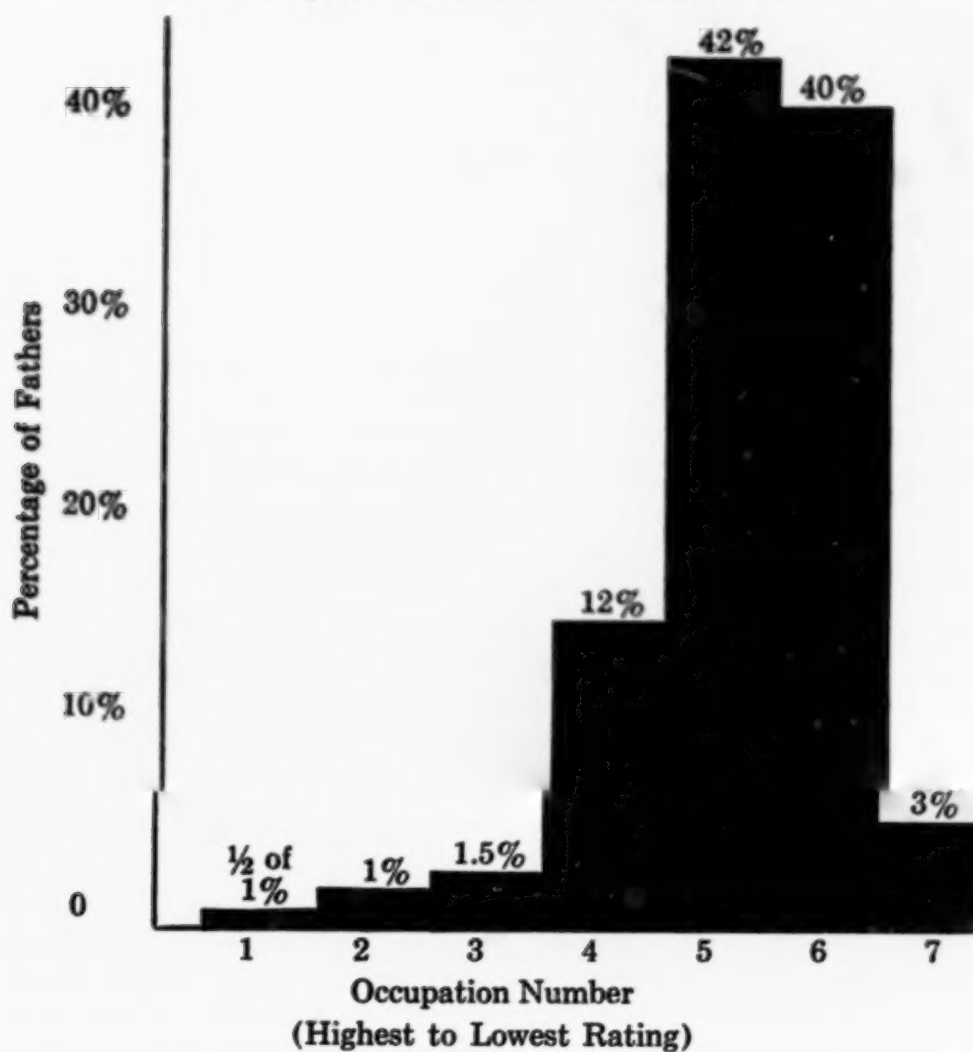
Elementary School A	331
Elementary School B	598
Elementary School C	606
Junior High School	455
Senior High School	432

Elementary School A, the pilot school, was operated for the purposes of research on a non-graded basis. Students from schools B and C were used as a control group during part of the study.

Using Warner's (7) classification of occupations, the district falls into the lower range of the scale with a bare sprinkling of professionals (mostly temporary residents). The fathers of many of the children work at the General Motors, Chrysler, or duPont plants. Family status as determined by father's occupation is shown in figure 1.

Twenty-five per cent of the mothers also work, principally as beauty operators, waitresses, sales clerks, or factory workers. Parent educational background ranges from third grade to Ph.D. level. Twenty-six per cent of the fathers have completed high school while forty per cent of the mothers are high school graduates. This district is not characterized by class mobility and is relatively free of the "company-associated" type of status consciousness which prevails in a number of other districts in the neighborhood. Although Wilmington is a club town, few of the mothers of children in this particular school district are associated with clubs. Church groups, Boy Scouts, Girls Scouts, Red Cross, and polio drives are pretty much the extent of their civic activity.

FIGURE 1
Occupational Classification of Fathers



In a survey of favorite magazines in the home the ones mentioned most often were:

Boys' Life

Field & Stream

Readers' Digest

Modern Screen

True Story

Look Magazine

Many responses of "I don't know" and "I don't look at magazines" were noted. All the children, however, responded to a question regarding "favorite comic books."

There are parochial schools on both the elementary and secondary levels within a few blocks of the public schools in the district. Few Catholic children attend the public schools, although there are a number who were in and out of the project school (depending upon the current state of their behavior) during the course of our research. There is an average of 3.05 children per family. Approximately 8% of the homes have other adults living with the family or the family is living with grandparents.

Teachers and Children

The American school is a middle-class organization. Most teachers come from the middle class and generally speaking they try to perpetuate the middle-class characteristics which have traditionally been associated with the schools. The majority of children in school are from the lower classes. Currently educational literature is drawing attention to this as a major problem in American schools. According to Jersild the teacher needs "to identify his own concerns and to share the concerns of his students"(3).

In our experimental school, where 82% of the families fell into classes 5 and 6 according to Warner's classification, we had a situation in which a number of aspects of this national problem came into focus on a local level.

Members of the lower-class groups generally have little property, and respect for property or responsibility to care for it are not usually developed routinely in these homes to the same extent that they are in middle-class homes. In our school the system of departmentalization (to be described more fully in Chapter II) and having children move from room to room many times a day placed heavy demands on the youngsters to be responsible for taking with them their pencils, papers, pocket books, or whatever other personal effects they might need as they went through their day. Since they spent much time in rooms which were not their homerooms and at desks which were not theirs but which contained the personal belongings of others, it also was necessary that they respect the property of others.

This became a real problem. Some few, very few, assumed responsibility for their pencils, for example. Pencil consumption at the school increased fantastically as teachers tried to fill in from their own and school supplies. A planned and coordinated effort to help these youngsters assume this responsibility was only partially successful and for only short periods. The factor which caused much

annoyance to some teachers was that some of the younger children learned pretty quickly and were responsible while others who were older did not, so this was obviously not just a problem of being old or mature enough! It seemed to make little or no difference to them whether they had a pencil or not. This pencil problem became such an issue that it was finally brought up at a PTA meeting. After several teachers had spoken briefly, asking for home cooperation in an all-out effort to make children responsible for their pencils, one father got up slowly and responded, saying . . .

Well, we've been hearing about this at home and Joe comes to school with a pencil and still has that pencil at night, so I guess he has it to work with during the day. And I expect that most of us here have heard about this trouble and have been trying to help. But there are a lot of us who aren't here. I don't like to talk about them—but I know my next door neighbor, for instance. He borrows my rake; his light bulbs burn out and he comes over and gets one or two from me; his wife's always running out of things and sending one of the kids over to the back door to borrow sugar or eggs or an umbrella or something. Once in a while they send things back. I don't really care, but most of the time I have to go over to get my tools when I need them and then half the time nobody over there can find them. I'm not saying there's anything really wrong with this and there are a lot of people just like that, but I don't see how you are going to get them to help much if you ask them to see that their children take care of their pencils.

The school staff added a silent "Amen" to this perceptive analysis of the situation, and the teachers who were of the "what-can-you-expect-from-children-of-families-like-that" school of thought were quick to bring up this incident at our next group meeting: "See. What did I tell you? It's hopeless. What can you expect from children of families like that?"

This is illustrative of some of the kinds of basic conflicts in everyday teacher-student relationships. The question of standards, social goals, and whom would you most like to be like also produced some enlightening material. One of our middle-class myths is that people in the lower classes really want to be like those "above" them. Some of our middle-class children who were generally good students and came to school well dressed, with an adequate supply of pencils for which they assumed responsibility, were apparent leaders in their groups, but in only 4 out of 97 essays written in response to the question, "Whom would you most like to be like?" were these good, respectable, middle-class leaders mentioned. The following response from a fifth-year level girl points up some of the things these youngsters considered important and would like to have:

I wish I were like J. T. because she is pretty and nice and has pretty clothes. She is a good-looking girl and has good manners. She has a

nice mother and nice brothers and sisters. She is not bad and she gets a dollar to spend every week. The boys like her. She is smart at school. Everybody likes her and wants to play with her.

J. T., the girl in question, was a slow learner and while not exactly a problem child, there was general shock among the faculty when she was chosen more frequently and with much more strongly expressed feelings than were other girls whom the teachers felt were far more worthy of emulation. The relative unimportance of school work, the strong emphasis on pretty clothes, being good looking, having some money and independence, and above all being liked by everyone stand out. "Nice" has many meanings depending on the situation and the person using the term. "Nice" is probably not a word that any teacher in our school would have used to describe J. T., her mother, or her brothers or sisters.

Many parents of children in our school expected their youngsters to defend themselves by fighting. Settling differences by show of physical superiority was the norm. This, of course, also presented a problem for the teachers and was an area in which the boys especially had a hard time communicating with their teachers. Jimmy and Eddie, two eight-year-olds, had this pattern of behavior so well established that both their teachers and the principal referred them to the psychologist as being in constant trouble with other children. They were first seen in a group situation. The session was opened with the remark, "Well, what's been going on lately?" The following notes about Jimmy and Eddie were taken during that session:

Jimmy dominated the group: by size, activity, voice and overall behavior. He had great difficulty staying near his chair, and even more difficulty letting anyone else talk. School talk centered around this morning's fight on the way to school, getting ahead of someone in lunch line, and who did what in class. Aspirations involved who was strongest and bragging about beating up someone. "School work" apparently is no problem for these children (only for their teachers, and sometimes their parents). Jim's leadership had the tone: "Anything you can do, I can do better" and if you don't believe me "I'll knock your block off."

Eddie is a pleasant youngster of rather slight build. He gives the impression of wanting to be a "toughie." He lisps frequently and stutters when excited. Eddie is one of "them" as far as Jim and Carl are concerned. He lives in a different neighborhood. Jim and Carl appear willing to take him into their crowd, and as the story of the morning's fight was told (mostly by Jim) constant reference was made to Eddie: "You did this and so—no, I don't mean *you*, I mean those fellas who live by you over there."

Differences in goals and ideals were not the only areas which needed to be faced with more realism. There were also the problems of cleanliness, bad language, toilet habits, irregular eating, TV listen-

ing, sleeping hours, and school attendance. There is a strong tendency for teachers to sit in judgment of children on the basis of how far they fall short of the teacher's social norms. This can have a far reaching influence in a subtle way.

Research in learning has shown that elaborate rewards are not necessary—or sometimes even effective—as reinforcement. A simple nod or a positive “Huh, huh” can serve very well as reinforcement. We have given considerable attention to the impact which various traumatic experiences can have upon children's emotional development; but what about the day-by-day give-and-take experiences, the simple nod or shake of the head, the raised eyebrow, the frown, the smile, the “Jack's always the last (or first) one” expressions? There are far more of these than there are of the spectacular “traumatic” variety. The cumulative effect of these minor or trivial incidents are the bulk of the raw material from which self-concepts and levels of aspiration are made. From birth on, humans gradually incorporate into the picture they have of themselves the view that others have of them. With the strong emphasis on individual differences and individual needs (based upon findings in the area of psychology and translated into the school situation through the “guidance point of view”), it has frequently been forgotten that humans are social creatures, that children live and work and study and play in groups, and that the concept they develop of themselves will reflect their group experiences; their experiences with teachers and with their classmates.

Children and Children

Relationships among elementary school children have most frequently been studied by means of sociograms and questionnaires. This is usually done in order to identify leaders and isolates. Our non-graded, departmentalized organization provided a situation which generated some social psychology problems of its own. In the area of leadership, for example, sociometric evaluation of first-year students showed that in one homeroom there were two girls and a boy and in the other homeroom two little girls who either had “adopted” or “been adopted” by several members of their class. These five were the ones who knew their schedule of classes well. They knew where to go next, and the others depended upon them. In some instances the leaders were not even aware that specific children were finding their way around by following them. This system, which the children had worked out among themselves, ran into some

snags when the late winter and early spring siege of illnesses and absences came. At that time it was not at all unusual for some child to stick his or her head in the project office and say, "Where do I go now?"

"Where do you usually go?"

"I don't know. I go with Joan, and she's not here today."

At Eastertime, when the change from individual movement to movement as a group was made, there was general rejoicing among the children. In response to questioning regarding this, these first-year students revealed some of the tensions under which they had been operating. "Now we can all go together. Jimmy used to go to science when we finished reading, and I went to Miss _____'s room. Then we had recess and he was there. I don't know where he went next (trying to keep track of his friend's schedule as well as his own)." This type of response was fairly typical of a small group of these children who had special friends. One of the girls on whom a number of children had been depending for finding their way around said, with obvious relief, "Now I won't have to watch that Sally doesn't come to arithmetic with us."

While the first-year children frequently got help from individual members of the group and missed these specific people when they were not there, this pattern was not discernable among the second-year students. These youngsters to whom the daily obstacle course was less formidable were primarily concerned with their "friends." They frequently dropped into the office to see if maybe they could "stay in our room today." The Eastertime change was a time of rejoicing for second year children also. One little girl, typical of her class, upon hearing the announcement, threw her arms around the girl next to her saying, "Just think, we'll be together *all day!*" Clapping of hands, jumping up and down, and exclamations of "oh boy" and "hurrah" greeted the announcement.

Staying with friends was also the big problem for the third year students. Write-a-story projective technics frequently produced such statements as: "I have a friend. Her name is Debbie. We like to play together. She is in _____ class. She walks home with me. I wish she could sit by me in school."

It is interesting to note that group Draw-A-Man pictures, although not analyzed thoroughly or systematically, when compared with those from the other classes, appear to have a large number of small drawings tucked off in a corner or very low on the paper.

According to Machover (4) this would tend to indicate a rather unsure concept of self in relation to the environment. (The academically most successful girl who was in levels with fifth-year students had one of the smallest, most insignificantly placed drawings.)

There was a proportionately larger number of youngsters in the third-year group who were referred for detention because of breaking rules. Some of this appears to have been a result of school practices. For example, several boys were detained because they were "playing marbles on the playground instead of coming into school." When questioned regarding this they complained about having "no time together."

The fourth- and fifth-year students, having already spent several years in the same school, had established many friendships and were less dependent upon the school situation for this. The older children who had classes with primary-level children tended to stay together except for one girl, a slow learner, who was a very retarded reader. She quickly assumed a mother role with her younger classmates in reading and language. On the other hand, fourth-year students who were achieving well and hence were placed in R-A-L groups at a fifth-year level were quite happy. They worked well with their older classmates and apparently had both status and stimulation.

The influence that children have upon one another in developing standards and goals has already been noted in the section dealing with teachers and children. No attempt was made to do a systematic study of that aspect of child-to-child relationships. In this report we have confined ourselves to reactions to that which was unique to our particular project—the grouping and departmentalization procedures.

Chapter

2

The Homogeneous Grouping Myth

Perhaps the research dealing with the grouping aspect of this project can best be told in the form of a case study—a case study of a “guidance-minded” elementary school administrator, full of energy, fired with enthusiasm, and sincerely interested in children. The children loved him. To see him walk down the hall at school dismissal time or through the cafeteria during lunchtime brought visions of the Pied Piper—or some current national hero. Hands reached out; children clustered around, “Hi, Mr. * * *,” “Hello, Mr. * * *,” “Oh, Mr. * * *” — all along his path.

He was sold on non-grading—also on homogeneous grouping, which he conceived to be an integral part of non-grading. He spoke eloquently to the point that, “The usual third grade has a range of reading ability going from first reader to fifth reader, yet we expect them all to work in the third reader or we expect teachers in the third grade to teach out of five different readers.” His further thinking on this matter was given in one of his talks to the PTA, “This isn’t the whole story. Not only do children in each grade differ a great deal in reading, they also differ in writing and spelling and arithmetic, and the ones who are farthest ahead in reading aren’t always the ones who are farthest ahead in arithmetic.”

Facing this problem of human variability and having available for the first time considerable data regarding each child (data accumulated during the first two years of the project), he spent the summer months devising a departmentalized schedule designed to “meet the individual needs” of each child in the three skill areas of reading, arithmetic, and language. “Needs” were determined on the

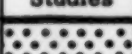
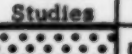
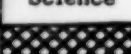
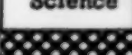
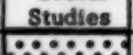
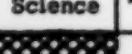
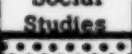
basis of the scores on standardized tests which had been given just before the close of school. The mechanical implications of this job can scarcely be appreciated. He had some 300 children who were to be grouped for homogeneity in reading, arithmetic, and language achievement and a schedule to devise so that they could be taught within the framework of the existing classrooms and staff (ten full-time teachers, three specialists for art, music, and physical education, and ten classrooms, a cafeteria, and a gymnasium). By dint of much hard work and considerable ingenuity he managed to devise such a schedule; and when school opened in September he could tell his teachers, "You will each have a range of no more than 1.4 grades in achievement in each of your classes."

The following plan of grouping and departmentalization was put into operation at the beginning of that school year:

Schedule

Each teacher had a homeroom and taught six consecutive levels of *one* subject. Basic periods were 35 minutes. All children moved from one room to another. A sample schedule is below.

FIGURE 2
Primary Level Schedule
Period

Level	1		Special (gym, etc.)	2		Homeroom Periods, Lunch, and Lunch Recess	Science		Social Studies
	2	Social Studies		3	Special			Science	
	3		Social Studies	4			Special		Science
	4	Science		5	Social Studies			Special	
	5		Science	6			Social Studies		Special
	6	Special		7	Science			Social Studies	

Staggered Recess in P.M.



Guidelines for Scheduling:

1. Reading is given prime consideration in all scheduling.
2. R-A-L subjects alternated, as indicated, to provide elasticity needed for scheduling ability and achievement variances.

Curriculum Plan

The time was roughly divided into three different areas:

- Area I — *Differentiated progress subjects:*
Reading, arithmetic, and language. Generally homogeneous grouping according to achievement.
- Area II — *Non-differentiated progress subjects:*
Science, social studies, art, music, French, physical education. Generally heterogeneous grouping on the basis of year in school and achievement in R-A-L.
- Area III — *Personal-social:*
Homeroom, study periods, recess, lunch, etc.
Groups established on basis of year in school.

Reading, arithmetic, and language were designated "differentiated progress" subjects because research has repeatedly shown that on the elementary level these subjects which depend upon more of a single stimulus-single response type of learning are taught effectively only to those children whose background of experience and achievement is such that they can deal with the specific learnings as they are presented(1).

There were twelve levels available in each of the three R-A-L subjects. Ten of these levels covered what normally would be covered in a school having children for grades 1 through 5. All children were expected to complete levels 1 through 5 and levels 7 through 11. Most of them would need five years in which to do it. The very bright, or those "academically talented" in one or more of the areas might cover it in less time. For them provision for enrichment is made in levels 6 and 12, since according to school policy in the district no child may enter sixth grade (in the junior high school building) until he has spent five years in elementary school.

The slow learners and those with individual deficiencies in one or more of the three areas might need an additional year to finish the required 10 levels. Youngsters with I.Q.'s of 75 or below, as ascertained on an individually administered intelligence test, had been placed in special classes for the educable retarded. They were not part of the group being studied.

A child could be in a different level in each of the three R-A-L or "differentiated progress" subjects. The "non-differentiated prog-

ress" subjects, science, health, social studies, art, music, languages, etc., were so designated because research has indicated that in these areas, even when rather precise stimuli are used, real learning can take place because of the relatively different roles which experience and achievement play in the situation. These subjects were also on a 12-level basis with 10 levels being considered average coverage for the normal youngster in five years.

Organization and grouping in this case, however, differed somewhat from the R-A-L group. In these areas two levels were available for each year in school, and placement in one or the other of these two levels was in most cases determined by relative achievement in reading, with an effort to keep the better readers in one group and the poorer readers in another. In actual practice science and social studies really served as shock absorbers, providing leeway which was necessary to make possible the highly differentiated R-A-L placement.

The personal-social area was centered in what was called the "homeroom." This would correspond to the "grade" in a conventionally graded elementary school. These homerooms were set up on the basis of how long the child had been in school, were designated by "year level," and were usually identified by the name of the teacher. Opening exercises, the collection of milk and lunch money, as well as reporting to parents, recess, lunch, library visits, and supervised study periods were all cared for by the homeroom teacher. A comparison of the experimental plan and the conventionally graded plan is shown in figure 3.

FIGURE 3
Comparison of Curriculum Designs

Regular Graded Plan

Area	First Year in School	2nd Year in School	3rd Year in School	4th Year in School	5th Year in School
No Differ- entiation	First Grade for all	2nd Grade for all	3rd Grade for all	4th Grade for all	5th Grade for all

Experimental Plan

Area	First Year in School	2nd Year in School	3rd Year in School	4th Year in School	5th Year in School
Personal Social	First Year level for all	2nd Year level for all	3rd Year level for all	4th Year level for all	5th Year level for all

Non-differentiated Subjects	Level I (2 groups)		Level II (2 groups)		Level III (2 groups)		Level IV (2 groups)		Level V (2 groups)	
	Level 6 avail. for enrichment					Level 12 avail. for enrichment				
R-A-L	Lev. 1	Lev. 2	Lev. 3	Lev. 4	Lev. 5	Lev. 7	Lev. 8	Lev. 9	Lev. 10	Lev. 11
	Level 6 available for enrichment					Level 12 available for enrichment				

Placement possibilities for each youngster are as follows:

Personal-Social: Choice of 1 level (actually 2 homerooms)

Non-differentiated Subjects: Choice of 2 levels.

Differentiated Subjects: Choice of 5 levels.

Planned enrichment following acceleration: Available at 2 levels.

What Happened?

By the middle of October the teachers had requested changes in R-A-L placement as follows:

Reading

Number of children to be moved up	32
Number of children to be moved down	19
Total number of children to be moved	51

Arithmetic

Number of children to be moved up	39
Number of children to be moved down	33
Total number of children to be moved	72

Language

Number of children to be moved up	8
Number of children to be moved down	31
Total number of children to be moved	39

This does not include any requests made by other regular teachers or by the special teachers. It would appear that within a few weeks after the opening of school the R-A-L teachers felt that approximately:

17% of the students were in the wrong reading group

24% of the students were in the wrong arithmetic group

13% of the students were in the wrong language group

71% of the requests for change of level involved children in the primary unit.

Reasons for wanting these changes were varied and reflect not only pupil misplacement but teacher adaptability. The teachers felt that even if the figures showed a range of no more than 1.4 in each group, many groups were more difficult to work with than were the groups they had had in a self-contained, heterogeneous class-

room situation. This was especially true of teachers in the primary unit. Some of it goes back to the nature of standardized tests and what they represent. For example, a seven-year-old boy and a twelve-year-old had the same scores on a standardized reading test. The twelve-year-old was also labelled "immature" and intellectually a "slow learner" while the seven-year-old was a "well developed" child who was a "good worker." From the evidence available it looked as though they belonged in the same reading group and such placement was made. This was a mistake which the teacher picked up very quickly. A reading score of 3.1 apparently did not mean the same thing to the seven-year-old as it did to the twelve-year-old. Their needs even in skill development in the specific area measured were not the same. One very obvious factor in this particular case was vocabulary. The seven-year-old did well in vocabulary but lacked work attack skills. (He just had never had them.); the twelve-year-old had a very poor vocabulary but had, through repeated rote training, acquired enough word attack skills that he could pick out the right answers on a standardized test; yet both had reading scores which averaged out to 3.1.

There was much grouping and regrouping during the course of the project; and if any firm conclusions can be reached on the basis of this experience, they might be these:

1. Successful grouping is not automatically the result of any one variable. There just is no system which will provide a "cure-all" solution to meeting individual needs. Individual needs are individual. For short periods in specific areas and for particular people they may coincide enough to be worth treating as group needs, but the time spent on trying to dream up a good mechanical way of grouping 20 or 25 as if they were one is really being spent in pursuit of an illusion. Even learning machines individualize more than this!
2. Ability and achievement grouping is more readily done on the intermediate than on the primary level.
3. Standardized tests scores, while providing evidence of the "figures don't lie" variety, are actually not very effective for grouping purposes.
4. Grouping assignments are best made after team discussions involving teachers who have had children in school, administrators, and guidance personnel.
5. Responsibility for final placement (and the possibility of changing that placement) must rest with one person.

Teacher Evaluation of School Practices

The mechanics involved in operating our departmentalization overshadowed all else that was going on in the school during the time that it was in force. At the end of that year the teachers evaluated school practices. They were unanimously in favor of non-grading but were divided on the question of departmentalization. Departmentalization for children of primary school age was unanimously denounced, although several of the teachers enjoyed teaching only one subject (science, for example). Teacher reaction to the departmentalized set-up varied with the age of the children.

First-Year Students

Teachers could find no good in departmentalization for children of this age. They felt:

Children were too young to take the responsibility of moving around so much and of caring for materials to the extent necessary under such conditions.

Discipline was very difficult to maintain.

There was too much time lost in "housekeeping."

It afforded little opportunity to develop needed close contacts with children.

There was not enough time for reading instruction.

It was difficult to make use of group dynamics in a constructive way.

Lesson planning was more involved.

Second-Year Students

As this level departmentalization was somewhat more tolerable, but still rejected as a procedure the teachers would recommend. They found:

Children were "school broken" and managed to get from class to class more easily.

There were fewer complaints about missing pencils, not knowing where to sit, and other "housekeeping" jobs.

Children who were in with older groups managed to hold their own academically but were socially "out of it."

Third-Year Students

The main reason teachers were unhappy about placing the third-year children in classes ranging from first through fifth grade appears to have been a rather subtle thing. The more experienced teachers finally were able to identify it. Teachers apparently had been used to, rather unconsciously, thinking of third graders as a generally "good group to work with" in spite of differences in school achievement. Youngsters around this age tended to work together better than they did during the first two years of school.

With the group no longer a group, but divided and scattered, they lost their identity. For the teachers in the intermediate school they became the "young ones that I have," and for the teachers in the primary school they were "those older children we still have." Although level placement of these youngsters ranged from level 3 through level 11, the bulk of the group was in levels 5, 6, 7, and 8, but apparently there were not enough third graders in any one group to have any of those levels take on the anticipated characteristics of third-grade classes. None of them became the "good group to work with" third grade.

Teachers felt that there was a need for general re-evaluation and inventory taking of children this age. The transition period from third to fourth grade was, together with the transition period from "readiness" to first grade, one of our real problem areas.

Fourth-Year Students

The teachers generally liked departmentalization for children this age. This was true especially in social studies and science. Both of these teachers ran long-term group projects which they had always wanted to do but had found impossible to do in the conventional set-up where they were required to allocate specific amounts of time to skill subjects. On the other hand, they also found that they were becoming very much aware of academic skills and often could evaluate a child's ability to read, write, or handle numbers more objectively than if they were directly involved in teaching him those skills. Some very valuable teacher discussions were held during which R-A-L teachers were alerted regarding specific needs and shortcomings of particular children. The practice of putting academically retarded fourth year students into the primary unit for R-A-L subjects was not a happy one either socially or academically and was discontinued in the spring. Teachers welcomed the opportunity to have more advanced fourth year pupils working with the more

advanced fifth-year pupils. There was unanimous agreement that this was a good practice and a strong tendency to give that group ever more challenging assignments and "let them go as far as they can."

Fifth-Year Students

Fourth- and fifth-year students were so completely integrated in classes that the same evaluation the teachers had of departmentalization and non-grading for fourth-year students also held true for fifth-year students. They liked both procedures.

The social studies teacher, who was generally most happy with departmentalization, had a problem in connection with some of the fifth-year students. Delaware has a rather precisely described state curriculum in social studies; and, while some flexibility can be worked out, there was strong feeling that all students must have specific things "before going into junior high school." Some fifth-year students, because of scheduling in R-A-L levels, were in social studies groups involved in third- or fourth- rather than fifth-grade curriculum subject matter.

There was also a feeling, and this was substantiated by objective data later in the year, that the needs of the educationally retarded child were not being met. Placing these children in groups where they were achieving always involved placement with children considerably younger and in most cases with histories of normal educational progress. Integration of the "normal-aged" group and the "overaged" group was usually not very successful. They tended to remain as two distinct groups within the class. Teachers thought of them that way and regularly referred to "the older ones in the group" and "the group."

Teachers also felt that 35-minute periods were not long enough to give the necessary help and follow-through on assignments. The independence which is associated with departmentalization assumes that the student himself will take responsibility for completing assignments or requesting any necessary help. This, of course, is true in a non-departmentalized set-up as well, but in actual practice most teachers find that they are needed to supervise study periods and to follow through on homework and non-classwork assignments. The tendency under departmentalization is for assignments to be made near the end of the class period, the youngster to gather up his belongings and rush to the next class, and then one or more periods later to return to his homeroom for study period during

which time he is to do the assignment. Problems of forgetting the assignment, not being able to decide which assignment to do first, not understanding the work, and the many other hurdles to study which face students were special hazards to the vulnerable fifth year academically retarded boys. They regularly reported to their parents that they had done their work in school, to their homeroom teachers that they had no work to do, and to their subject matter teachers that they didn't understand the assignment and that their homeroom teacher couldn't help them. In many cases the latter was actually true and was one of the very real criticisms the teachers had of departmentalization for these particular children.

In conclusion we might summarize:

1. Non-grading? — Definitely yes.
2. Departmentalization? — It depends. Generally better as child gets older.
3. Homogeneous grouping? — What is it?

Chapter

3

Record Keeping and Data Processing

(Via IBM)

Individual cumulative folders containing developmental data for each youngster in a school are one of the basic tools of guidance. These folders attempt to cover physical, social, emotional, and mental growth as well as growth in academic achievement. Ideally one is to get a picture of the whole child as he is growing in many areas. Removing grade designations in a school, allowing children to "move when ready," and making arrangements so that children proceed at their own individual rates in each area, neither skipping at the end of the year in order to go into the next "grade," nor repeating some of what was already covered if they did not progress enough to "pass," implies that there is a continuum of learning along which children progress as they go through school, and furthermore that the school knows pretty much where each child is along this continuum at any given time. This is basically a curriculum problem. What do you teach and when do you teach it? All schools have curricula which they follow. Whether they are subject matter, activity centered, or whatever form they take depends upon local educational philosophy. What we are concerned with here is that they know where they are going, have ways of evaluating progress toward the designated goal, and also have some way of recording when a specific goal has been reached. Grouping children according to achievement levels in specific areas and then deciding

when they are ready for the next level forces one into taking a stern look at the record keeping procedures.

Our experimental school is what in Delaware is known as a State Board Unit. It is under supervision of the State Department of Public Instruction and follows closely the elementary school goals and objectives set down by that department in a bulletin bearing the same title. Since our differentiated level program was primarily concerned with the skills in the areas of reading, arithmetic, and language, we used the sections of this bulletin devoted to those areas, divided them into 10 steps or "levels" and recorded individual progress on specially designed IBM cards. These specific cards will be described in greater detail later in this chapter.

The data which needed to be gathered in connection with establishing accurate developmental records, together with the tremendous amount of bookkeeping which departmentalization entailed, plus the need for having data readily available for statistical purposes posed a large problem. Electronic data processing was the answer. While it is questionable whether this procedure is economically feasible with a school population of only 300 if such equipment is not already available, it was felt that the research aspects of the situation justified investigating this method of solving the problem.

We proposed to set up a pupil accounting system which with a minimum of clerical time on the part of the school staff would afford comprehensive and accurate pupil personnel records and make them readily available in an easily understood form and at the same time would furnish data for statistical analysis by the administrative office and the guidance project office. Records were needed by: 10 homeroom teachers, 12 subject matter teachers, 1 nurse, 1 principal, the superintendent's office, and the project office.

Data Processing Sheets

The first step in setting up such a system of pupil accounting involves designing a form upon which routine data can be gathered and which in turn is so arranged that a key-punch operator can punch it into cards quickly and easily. The Pre-School Data Processing Sheet shown in figure 4 was used for this purpose. It was used first at registration time when identification data and family background information were entered. Sections F and G were filled in when that information was available. The nurse filled in section H at the time she checked medical examination reports.

FIGURE 4

Pre-School Data Processing Sheet

Please use red pencil to fill in squares.

School Name			(May use stamp for this.)
	1	4	
Student's Name	 		
	5	16	
	 		
	17	23	24
	First Name		Middle Initial
Address	 		
	25	42	
	 		
	43	49	
	City		
Father's Given Name or Guardian's Surname & Initial	 		
	50	60	
A. Sex	(61)	E. No. Brothers & Sisters	
(check one)	Male ☐ 1		
	Female ☐ 2	70	
B. Birthdate	Mo. 	Da. 	F. PMA I.Q.
	62 63	64 65	66 67
			71 72 73
C. Father's Occupation			74
	(See instructions.)		G. Binet I.Q.
68			75 76 77
*Not to be filled in by the school.			78

D. Family Status

- | | |
|---|---------------------------------|
| 1. Married and Living Together | (69) ☐ 1 |
| 2. Separated | ☐ 2 |
| 3. Divorced | ☐ 3 |
| 4. Widowed | ☐ 4 |
| 5. Widowed and Remarried | ☐ 5 |
| 6. Living with Grandparents | ☐ 6 |
| 7. Living with Other Family Members as Guardian | ☐ 7 |
| 8. Foster Home | ☐ 8 |

H. Physical Problems

- | | |
|----------------------------------|---------------------------------|
| 0. None | (79) ☐ 0 |
| 1. Height and Weight | ☐ 1 |
| 2. Vision | ☐ 2 |
| 3. Speech | ☐ 3 |
| 4. Hearing | ☐ 4 |
| 5. Orthopedic | ☐ 5 |
| 6. Headaches | ☐ 6 |
| 7. Asthma, other allergies | ☐ 7 |
| 8. Stomach - digestive disorders | ☐ 8 |
| 9. Other | ☐ 9 |

When designing such a form one must remember that an IBM card has 80 columns with numbers running from 0 to 9 and the possibility of an X and a Y punch in each column and that data arranged in sequential order with a minimum of space between the column designation and the code number provides for ease in punching, thus cutting down possibility of errors and being less expensive.

School Name

In this case school name was allotted columns 1 through 4. A number code is used to designate schools; two columns are assigned to school district and the other two to school number within the district.

Student's Name

Columns 5 through 16 will usually take care of any last name. Sorting for just the first five or six letters will serve when arranging in alphabetic order. The first name should always begin in a specific column (#17 here).

Address

Sorting is not a problem here. Just getting the letters and numbers into their boxes will serve the purpose.

Father's or Guardian's Name

This is merely for printing and not for sorting and needs therefore only to be clearly printed.

Sex

If a male, check 61-1; female 61-2.

Birthdate

Use month numbers putting a "0" in the first box for single digit months and the same for single digit days.

Father's Occupation

An instruction sheet listing occupational groups from 0 through 9 is needed to properly code these occupations. The code number is then placed in box 68.

Family Status

Check the proper box.

Test Scores

Test scores (given here in I.Q. form) take two or three columns. The column immediately following the I.Q. score each time (columns 75 and 79) are left free so that stanine designations for each score may be entered.

These data processing sheets, which are usually run off locally from stencils and are printed in purple or black ink, are much easier to read if red pencils are used in filling them out.

Physical evaluation data is included on the card mostly for purposes of sorting. "Which youngsters have speech problems?" etc. One column takes care of all, punching that column according to the designated code. Under this kind of set-up one can quickly locate youngsters with physical deviations.

For students already in school the data processing sheets are somewhat different. They include identification data, ability and achievement test scores (current and past), physical evaluation, class schedule, and current level placement. In working with test scores, these were converted to stanines whenever possible. This serves a number of purposes: (1) It helps get away from the tendency among some teachers and administrators to attach considerable significance to small variations in test scores; (2) Makes possible comparisons between measured ability and measured achievement in specific areas; (3) Is much more maneuverable in the statistical treatment of mass data, and (4) Uses only one column on an IBM card as compared to the usual three or four needed if raw scores or grade placement scores are recorded.

Once data is punched into an IBM card it can be reproduced and made available in many different forms and by proper programming much of the mathematical work involved in making statistical analysis can be done electronically. In this report we shall discuss only the more immediate, everyday uses of this material.

IBM Cards

The original IBM card can be reproduced *in toto* or with whatever combination of data is wanted and on cards of different colors. This is not only very quick but also very inexpensive and offers many intriguing possibilities.

Skill Cards

We devised skill cards, using pink cards for reading, yellow for arithmetic, and blue for language. Punching only in the first 20 columns so that each card would automatically have the youngster's name printed on it thus saving the teacher this writing, the rest of the card was set off to record pupil progress in the area as shown in figure 5.

FIGURE 5

SMITH JOHN													
Index		Quality of Work											
		Time											
		Date Finished											
			1	2	3	4	5	6	7	8	9	10	11

This "level" designation was coordinated with the levels as determined by breaking down the goals and objectives which were listed for elementary schools and assigning them to specific levels. For example, some landmarks along the way on the language skill card were:

Know the letters of the alphabet (When a teacher gets a child whose Skill Card shows that he has completed Level II, she knows that, in addition to other specifically designated things, he also knows the alphabet.)	Level II
Abbreviate months of the year and days of the week.	Level IV
Changes from manuscript to cursive writing.	Level V

Developmental Cards

Duplicates of the skill cards were made using the color assigned to each area. Identification data and stanine score for ability were punched into each card. Standardized reading test scores were then punched into adjacent columns. With this data one can get a card (or roster sheet) showing:

SMITH JOHN	8	3.1	4.6	6.2	7
NAME	Yr. Entered School	Stanford Ach. '59	Stanford Ach. '60	Stanford Ach. '61	Ability

If these data were on a pink (reading) card it would mean to the teacher that John, who started school in 1958, had Stanford test scores in reading of 3.1, 4.6, and 6.2 in 1959, 1960, and 1961 respectively, and with a stanine of 7 in the last printed column, was a youngster of bright normal ability.

These development records of academic achievement in specific areas can be kept up to date in a number of ways:

1. The card can be designed so that additional columns can be punched for new data as it becomes available; or
2. As new data become available a new card can be made by duplicating pertinent sections of the master card and then punching in the new data.

Either way additional cards and new rosters with the most current information can be quickly available.

If special paper with adhesive backing is used to run off rosters, strips giving the annual test score data can be readily attached to cumulative folders. Several of the commercial test scoring services also have such printed strips available. This eliminates a vast amount of clerical work involved in copying scores onto cumulative folders.

Anecdotal Record Cards

Some teachers find extra sets of cards having only the youngster's name printed on them useful for jotting down notes or anecdotal records of individual children. This rather simple use has real possibilities and might serve as a way of encouraging teachers to actually write down those valuable observations which they make from time to time but which so frequently never see the light of day or which teachers become rather self-conscious about and feel they need some kind of "form" for recording, or worse yet, which finally appear on the cumulative folder under the single word "immature," "Johnny is still very immature in comparison with his group."

Rosters

Data which has been punched into IBM cards can also be reproduced in list form. In our pilot school we ran off homeroom rosters having identification data and daily class schedules. Homeroom rosters and schedules as printed are shown in figure 6.

FIGURE 6
Homeroom Rosters and Schedules

Home- Room	Name	Birthdate	Year		Level Placement			Daily Schedule	
			Entered School	Read- ing	Arith- metic	Lan- guage			
1	CABLE	MACALYNN	1 24 52	8	5	5	4	&41-2	81131
1	CAIN	ROBERT	11 25 52	8	2	2	2	41181	3&1-1
1	COCKERILL	RONALD	7 7 52	8	3	4	4	4-111	8&131
1	CROSSLAND	WILLIAM	12 12 52	8	4	4	4	&41-1	18131
1	CROSSAN	ELIZABETH	12 15 52	8	4	4	4	4-181	1&131
1	EVERETT	NORMA	9 18 52	8	6	5	5	541-1	8&111
1	FLINN	KEVIN	5 8 52	8	5	5	5	341-1	811&1
1	GARDINER	CHARLES	11 30 52	8	4	4	3	4-181	131&1

Class rosters were run off for each class that every teacher had, giving the reading level, child's name, year entered school, and current test scores in the particular subject. Under our departmentalized set-up this meant 10 different rosters for each teacher and represented a tremendous saving in clerical and teacher time.

FIGURE 7

Class Roster - Reading

Reading Level	Name	Year Entered School	Reading Achievement Test Scores			
			California '59 '60	Stanford '59 '60	STEP '59 '60	
8	BRAND	7	3.0	3.0	3.0	
8	BROWN	5	3.8	3.4	5.8	3 5
8	CAIN	7		1.9	3.2	
8	CAIN	6			4.3	4 4
8	CALVETTI	6		2.5	3.1	4 3
8	CATASUS	5			3.6	3
8	CHRISTOPHER	7	2.2	2.3	3.1	
8	DANNA	6		1.9	2.8	1 3
8	FLOYD	7	4.3	3.5	4.8	

In connection with these rosters one can also get ranges in age, measured ability, and test scores for each class.

Statistical Analysis and Research

Statistical analysis of the data available in schools is greatly expedited by the use of electronic data processing. Most of the work involved in getting ranges, means, and correlations can be done by machine. The quantitative information which is routinely available whenever groups of people are together as children are in school is rarely analyzed except in a most superficial manner. Much information which can give feedback regarding the actual facts in a particular school is lost because of lack of time or lack of know-how. Incorporating this kind of record keeping into the regular school routine is easier to do when machines are available to help. They not only are quick and accurate, but they seem to lend an air of disciplined importance to a job, which so frequently is relegated to a backseat—or that one just never gets around to.

Chapter

4

Evaluation of Academic Achievement

"How well do the children do under this kind of program?" is the question most frequently asked by parents, teachers, administrators, and school boards. By "do" they usually mean academic achievement as measured by a standardized test. One might first ask, "What kind of district is this so far as school achievement is concerned?" Standard test scores for all children in grades 2 through 5 for the years, 1952, 1953, and 1954 were studied. For these three years, which were free from experimental projects, we find that:

In Arithmetic*		Nat'l Norm
Average score at end of 2nd grade	2.0	2.6
Average score at end of 3rd grade	3.2	3.8
Average score at end of 4th grade	4.3	4.8
Average score at end of 5th grade	4.9	5.8

This would indicate that over this period, on the average, children in this school tended to be about six months behind the national norms in arithmetic.

In Reading*		Nat'l Norm
Average score at end of 2nd grade	1.8	2.8
Average score at end of 3rd grade	2.8	3.8
Average score at end of 4th grade	3.9	4.8
Average score at end of 5th grade	4.6	5.8

*Total N involved in the above figures = 351.

In the area of reading children in this school tended to be about a year behind the national norms.

Average yearly gains during this period are shown in table 1.

TABLE I
Academic Growth During Pre-Project Period

Subject	Between 2nd & 3rd Grade	Between 3rd & 4th Grade	Between 4th & 5th Grade
Arithmetic	1.4	1.0	0.9
Reading	1.4	0.9	0.8

These youngsters were apparently getting off to a poor start in first and second grade, made more than average progress in grade 3, and then moved along at a slightly below average rate in grades 4 and 5. This data does not bare too close scrutiny, for a number of youngsters who kept the 2nd grade scores so low did not pass to 3rd grade and their changed status influenced the recorded rate of progress in 2nd grade. It may, however, be safely said that children in the district generally finished about one year behind national norms in reading and about six months behind national norms in arithmetic. The initial handicap (evident in low scores at the end of 2nd grade) was not overcome although progress beginning at 3rd grade was pretty much average. One cannot help but draw attention to home and community factors in connection with this and question how influential these factors were in producing such low scores during the beginning school years.

During the time of our project, records show academic achievement patterns as follows:

First-Year Students

Results of WRAT testing in May, 1960, showed average gains of 0.8 in reading, 1.1 in arithmetic, and 1.1 in spelling. A study of these gains compared with measured ability indicated that: the Bright Normal youngsters progressed less than the average in all three areas and also less than the Dull Normal youngsters in reading and spelling. Product-moment correlations between Binet scores and changes in WRAT scores showed:

Ability and Reading Change	-.03
Ability and Arithmetic Change	-.06
Ability and Spelling Change	+.04

Thus there was: average progress in all areas for the class as a whole; underachievement for the brighter children, no significant relationship between measured ability and measured academic progress in reading, arithmetic, and spelling.

Second-Year Students

Achievement of second year students as measured by California Achievement Test scores is shown in table 2.

TABLE 2
A Comparison, by Groups, of Second Year Achievements

Group	September			May			Change		
	R	A	L	R	A	L	R	A	L
Total Group	2.1	2.4	2.0	3.1	3.7	3.2	1.0	1.3	1.2
Bright Normal	2.9	3.1	2.7	3.8	4.3	4.0	0.9	1.2	1.3
Dull Normal	1.6	1.7	1.7	2.3	2.5	2.0	0.7	0.8	0.3
Gained Most	2.1	2.3	2.0	3.6	4.1	3.6	1.5	1.8	1.6

These are average gains for the group as a whole. The Dull Normal appear to be progressing at an expected rate, but the more capable students seem to be underachieving. They started out higher but moved at an average rate. Students of average ability were the ones who did best.

Product-moment correlations between ability as measured by the California Mental Maturity Test and achievement as measured by the California Achievement battery for fifty second year students were:

Ability and Reading Change	+ .23
Ability and Arithmetic Change	+ .17
Ability and Language Change	+ .38

Third-Year Students

California Achievement Test scores showed mean gains of 1.0 in reading, 1.4 in arithmetic, and 1.1 in language, with progress in arithmetic somewhat more stable than progress in other areas.

Product-moment correlations between ability and academic progress showed:

Ability and Reading Change	+ .27
Ability and Arithmetic Change	+ .10
Ability and Language Change	+ .01

Most progress was made by those of average ability.

There were twice as many Dull Normal as Bright Normal children in the group. Their progress compared very favorably with the

Bright Normal pupils who averaged more than 40 points higher on the Mental Maturity Test.

Fourth-Year Students

Achievement scores on the complete STEP battery were low-average in September and showed less than a year's gain during the year. Using percentile bands the year's progress of the groups looks like this:

TABLE 3
STEP Battery Results in Percentile Bands

Testing	Reading	Math.	Writing	List.	Science	Soc.Std.
Sept., 1959	43-50	36-72	29-63	23-39	20-46	22-46
Apr., 1960	25-43	36-72	29-51	27-44	16-32	20-30

The converted scores show some gain during the year, but in all areas except listening and mathematics this gain appears to have been less than average.

Fifth-Year Students

STEP and Stanford scores showed mean achievement levels approximately one year below national norms. STEP fall and spring showed average progress for the year. (They started a year below average and were about the same distance below average at the end of the year.)

The overall picture of academic achievement in the school did not change greatly in the years 1952 to 1960. Children still tended to be six months to a year behind national norms. The pattern, however, appears to have changed somewhat. Children during the project years got off to a better start, made more progress during their first year, but then slowed down.

Ability was not closely related to achievement. At the beginning school level home background and readiness for school were more important, and during the intermediate years we find consistent underachievement by all but a few of the bright youngsters.

These comparisons of specific and relative achievement scores were valid in giving an overall picture of the academic climate. Further specific evaluation of the non-graded, developmental guidance oriented school was done in two ways.

(1) A retroactive control group consisting of youngsters who had attended the pilot school before the experimental program was intro-

duced was used to evaluate achievement in reading and arithmetic.

(2) A concurrent control group taken from the other conventionally operated elementary schools in the district was used to evaluate achievement in spelling, arithmetic, word fluency, and general information.

In both instances the control and experimental groups were matched for C.A., sex, and measured ability.

THE RETROACTIVE CONTROL GROUP

How well did these youngsters who had been in the developmental guidance oriented, non-graded school from the beginning do in comparison with similar children in the same school before the program was started? In order to answer this question we had to go back in the school files and find children for whom consecutive Stanford Achievement Test scores were available for their 2nd, 3rd, 4th, and 5th grade years. It was possible to collect a group of 21 students who met this requirement. These 21 were then paired off with students for whom the same set of scores were available but who were in the experimental group.

A comparison of the two groups is shown in table 4.

TABLE 4
Characteristics of Experimental and Retroactive Control Groups

Group	Mean C.A.	Mean I.Q.	N Boys	N Girls	Total N
Experimental	11-1	97	14	7	21
Retroactive Control	11-0	95	14	7	21

Achievement in Reading

A comparison of reading scores on the Stanford Achievement Tests is shown in table 5.

TABLE 5
Achievement in Reading
(Experimental and Retroactive Control Groups)

Group	2nd Grade	3rd Grade	4th Grade	5th Grade
Experimental	2.4	3.4	3.6	4.6
Retroactive Control	1.4	2.7	3.9	4.7

The rate at which this growth took place is shown in table 6.

TABLE 6
Growth in Reading
(Experimental and Retroactive Control Groups)

Group	Between 2nd & 3rd Grade	Between 3rd & 4th Grade	Between 4th & 5th Grade
Experimental	1.0	0.2	1.0
Retroactive Control	1.3	1.2	0.8

From this it would appear that while the experimental group showed initial advantage over the retroactive group, the former having 2.4 in second grade as compared to 1.4 for the latter (see table 5), this tended to decrease as time went on. The reason for this is not clear. It may well have been due to the relatively better worked out program and greater attention which was given to children during their first and second years. Perhaps our intermediate level program was not good enough or was too confused to maintain this initial advantage. It is also well to note the small amount of growth (0.2) for the experimental group during what would conventionally have been the fourth grade. This was a year of unusual administrative turmoil in the school, and it is reasonable to assume that this hectic school climate is being reflected in the achievement scores which for that period show less gain than at any other time during the operation of the project or anytime before the project was started.

TABLE 7
Achievement in Reading by Sex
(Experimental and Retroactive Control Groups)

Group	2nd Grade		3rd Grade		4th Grade		5th Grade	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Experimental	2.4	2.3	3.2	3.7	3.4	4.1	4.3	5.1
Retroactive Control	1.4	1.4	2.6	2.9	3.9	3.9	4.7	4.6

Girls apparently profited more from this new program than did the boys. This is rather surprising and somewhat disappointing. One always hopes that new procedures will show noteworthy changes in learning, especially of boys, since boys constitute the majority of our educationally retarded youngsters.

Achievement in Arithmetic

Arithmetic was the first subject to be put on a non-graded, developmental basis in this school district. As a matter of fact two years before the beginning of the research study the entire district had gone on an "open-end" arithmetic program, and the previous inauguration of this program was a pertinent factor in choosing this school district for our non-graded research. While the data may be interpreted as representing a comparison of the pre-experimental arithmetic curriculum results with the experimental arithmetic curriculum results, the important factor in this situation actually was not the arithmetic program itself but rather the fact that teachers in the experimental school were teaching arithmetic this way for the first time. In view of this, one might expect that the picture in arithmetic would be rather different from the reading picture.

Achievement in arithmetic as measured by the Stanford Achievement Test is shown in table 8.

TABLE 8
Achievement in Arithmetic
(Experimental and Retroactive Control Groups)

Group	2nd Grade	3rd Grade	4th Grade	5th Grade
Experimental	2.8	3.7	4.1	4.8
Retroactive Control	1.7	3.3	4.4	5.4

The rate at which this growth in arithmetic took place is shown in table 9.

TABLE 9
Growth in Arithmetic
(Experimental and Retroactive Control Groups)

Group	Between 2nd & 3rd Grade	Between 3rd & 4th Grade	Between 4th & 5th Grade
Experimental	0.9	0.4	0.7
Retroactive Control	1.6	1.1	1.0

Here, likewise, the experimental group had an initial advantage (2.8 compared with 1.7) which disappeared by the end of fourth grade; and again there is considerably less growth during the year of tension and turmoil.

Breakdown by sex shows:

TABLE 10
Achievement in Arithmetic by Sex
(Experimental and Retroactive Control Groups)

Group	2nd Grade		3rd Grade		4th Grade		5th Grade	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Experimental	2.7	3.0	3.7	3.7	4.0	4.4	4.7	5.1
Retroactive Control	1.7	1.8	3.1	3.6	4.4	4.4	5.5	5.1

Both the boys and the girls in the experimental group did better than those in the retroactive control group during their first two years (Experimental Group: Boys, 2.7; Girls 3.0. Retroactive Group: Boys, 1.7; Girls 1.8). The rate of progress slowed down during the next year for the experimental group and the initial advantage which youngsters in the experimental school showed disappeared by fourth grade.

Summary of Comparison with Retroactive Control Group

Achievement test scores showing development in reading and arithmetic over a period of five years for children in the non-graded, developmental guidance oriented school were compared with similar achievement test scores of a matched group of children who finished the same school before the experimental work was started. Results showed:

1. Achievement in reading was just about the same for the two groups (4.6 as compared to 4.7).
2. Achievement in arithmetic was the same for girls in both groups (5.1). Boys in the retroactive control group did better than their partners in the experimental group (5.5 as compared with 4.7).
3. In both reading and arithmetic the experimental group was superior to the retroactive group for grades 1 and 2.
4. In both reading and arithmetic the experimental group did very poorly during the year of turmoil and tension. This was in comparison not only to their own previous and latter performance but also in comparison to the performance of other groups in the school.
5. The initial advantage which youngsters in the experimental group enjoyed disappeared by the time they reached fourth grade.

Two questions:

(1) What if there had not been that bad year; would the experimental group have maintained its superiority?

(2) Most of the developmental guidance work was concentrated on the early grades and the teachers of these children in these grades. If a similar amount of service had been available at the intermediate level, would the experimental group have maintained its superiority?

One might tentatively conclude that scores on achievement tests vary with school climate since (1) rather well developed guidance procedures show a difference of about one year in both arithmetic and reading (2.4 compared with 1.4 in reading—2.8 as compared with 1.7 in arithmetic) by second grade; (2) periods of tension and turmoil show a decrease in learning rate. (Overall average yearly growth in both reading and arithmetic in this school was about 1.1. During the year of turmoil and tension the average growth in these areas was 0.2 and 0.4 for reading and arithmetic respectively.)

THE CONCURRENT CONTROL GROUP

How well did these youngsters who were in the experimental school from the beginning do in comparison with their neighbors who were in the other elementary schools in the district? Matching again was done on the basis of C.A., sex, and Otis scores in the 4th grade.

A comparison of the two groups is shown in table 11.

TABLE 11
Characteristics of Experimental and Concurrent Control Groups

Group	Mean C.A.	Mean I.Q.	Boys N	Girls N	Total N
Experimental	11-0	95	21	26	47
Concurrent Control	11-0	96	21	26	47

Achievement in this case was measured in September of the year they were all entering sixth grade. The Wide Range Achievement Test was used for arithmetic and spelling. For these groups we also got measures for word fluency and general information. A comparison of the results of this testing is shown in table 12.

TABLE 12
Achievement for Non-Graded and Graded Students
(Concurrent Control Group)

Area Tested	Group	Mean No. Right	Mean Differ- ence	t	Significance
Arithmetic	Boys — Non-Graded	14.9	-5.4	-4.72	Significant at 1% level
	Boys — Graded	20.3			
	Girls — Non-Graded	17.6	-5.1	-4.15	Significant at 1% level
	Girls — Graded	22.7			
Spelling	Boys — Non-Graded	28.2	-2.1	-1.40	Not significant
	Boys — Graded	30.3			
	Girls — Non-Graded	35.7	+1.2	+0.64	Not significant
	Girls — Graded	34.5			
General Information	Boys — Non-Graded	12.9	+0.8	+0.50	Not significant
	Boys — Graded	12.1			
	Girls — Non-Graded	12.9	-1.2	-2.80	Significant at 1% level
	Girls — Graded	14.1			
Word Fluency	Boys — Non-Graded	9.0	+0.4	+0.34	Not significant
	Boys — Graded	8.6			
	Girls — Non-Graded	14.4	+3.7	+4.35	Significant at 1% level
	Girls — Graded	10.7			

Arithmetic

Both the boys and the girls in the conventionally graded school did better than their partners in the non-graded school so far as arithmetic was concerned. This difference in each case is significant at the 1% level of confidence. The average youngster in the conventional school got 5 more problems right than did the average youngster in the experimental school. In only four cases (2 boys and 2 girls) did the non-graded student actually do better than his partner, and never did he exceed his partner by more than 4 points. In five cases the non-graded student scored 10 or more points less than his partner.

Converting these raw scores to grade placement scores and using data from all the students entering sixth grade in the district ($N=254$), we find that the mean arithmetic score for the youngsters entering sixth grade was 4.9. The three schools showed means as follows:

School A (Experimental School)	4.4
School B	4.9
School C	5.2

The entire district was involved in the new arithmetic program and overall results were, according to this measure, still short of the

national average. This particular arithmetic program required considerable training for teachers to work effectively with it, and many teachers throughout the district had difficulty. In the non-graded school additional experimental programs were inaugurated before the arithmetic program was well under control. This undoubtedly added to the confusion, and one might well question the wisdom of trying too many new things at once.

Spelling

In spelling all of the students entering sixth grade had a mean score of 4.3 with the three schools having individual means as follows:

School A (Experimental School)	4.4
School B	4.2
School C	4.5

The experimental group did not differ significantly from the concurrent control group in this area. Examination of the data showed that in spelling the graded boys and the non-graded girls tended to do slightly better than their matches. There were very few good spellers in any of the schools.

General Information

Boys in the two groups appear to have about the same amount of general information. The non-graded boys did slightly better, but with a t of .50, this difference is not significant. Girls, on the other hand, show a difference which is significant at the 1% level. Those in the conventionally graded school apparently acquired more general information. This may be partially accounted for by the nature of the questions on the general information scale and the particular curriculum plan in the experimental school. The questions which differentiated one group from another were those which usually fall into the social studies part of a school program (location of Chili, capital of Greece, etc.). Social studies in the experimental school was a "non-differentiated" subject. Placement in particular groups or classes was frequently by default. (It was the only class available when first consideration was given to making specific placements in the R-A-L skill areas.) Fifty-four per cent of the girls in this group were in social studies classes which followed a course of study lower than they would have had if they attended one of the conventionally graded schools.

Word Fluency

Word fluency is associated less with specific school learnings and curriculum plans than are arithmetic, spelling, and general information, and probably reflects growth of a more general nature. Both boys and girls in the non-graded school did better than their partners when it came to word fluency. This difference was significant at the 1% level for the girls. Could school climate have been partially responsible for this difference?)

Summary of Comparison with Concurrent Control Group

Achievement test scores showing current level of achievement in arithmetic, spelling, general information, and word fluency for children entering sixth grade after three years in the non-graded, developmental guidance oriented school were compared with similar scores of a matched group of children who had attended other schools in the district. Results showed:

1. Achievement in arithmetic was significantly better in the conventionally graded school.
2. There was no significant difference in spelling.
3. Boys in both groups had acquired about the same amount of general information. Girls in the experimental group were significantly behind their matchmates in this area.
4. In word fluency the children in the experimental school were superior. For the girls this difference was significant at the 1% level.
5. School practices dealing with curriculum and amount of experimentation going on in the school may have influenced achievement in general information and arithmetic.
6. School climate may have influenced achievement in word fluency.

Chapter

5

Level of Aspiration

Skinner defines education as "The establishing of behavior which will be of advantage to the individual and to others at some future time," (3) and goes on to state that the "educational agency" — or school — provides reinforcements which condition students. Symonds and others have pointed out that children strive to succeed because of a need for recognition and approval. Under our conventionally graded school system this recognition and approval is largely grade-associated. If a youngster achieves what is normal or average for his grade, he has recognition and approval. If he falls short, he must hunt other ways of gaining this recognition and approval. If he reaches grade norm with little or no effort on his part, such recognition and approval have little meaning. Thus throughout the school years children have built into them an unconscious level of aspiration regarding academic work and many times also regarding life goals and vocations which society repeatedly tells them are entered through the proper passageway, the key to which one picks up in school — the school record. Did you pass? What kinds of marks did you get?

According to Russell, "Level of Aspiration may be regarded as a special form of attitude which influences children's thinking. It involves the child's attitude toward himself" (2). This special form of attitude Russell goes on to say has "directive influence" (2). It may possibly be of advantage or disadvantage to the individual at some future time.

Work on level of aspiration has been of many kinds. It is generally accepted that an individual may have a different LOA for different areas of operation: one in the field of sports and physical endeavor, another for social activities, and another in school work. Sears (1) in

her study of academically successful and unsuccessful children found that the unsuccessful ones were less realistic and less able to predict their own performance than were the successful ones. This would lead to the question: If a group of children over a period of years were given elementary school experiences which provided the kind of reinforcement that created a general feeling of personal challenge and fulfillment rather than a feeling of falling short, just making, or going beyond a prescribed measuring stick, would they view themselves more realistically in academic areas? Would they be able to predict their own performance more accurately?

It is in answer to these questions that the following study was initiated.

Subjects

All students finishing three years in the non-graded, developmental guidance oriented school program were matched with students from the two other elementary schools in the district (same groups as were used in the concurrent control group study of achievement). This part of the study was done at the time the children had finished work in their respective elementary schools and were beginning sixth grade in a new building attended by students from all three schools in the district.

Procedure

During the first week of school in September of the year they were entering sixth grade, measures of level of aspiration were made of all children in the district. Instructions and materials used for administering these level of aspiration measures are shown in the appendix. The instruments used were the spelling and arithmetic sections of the Wide Range Achievement Test, items from the general information section of the Wechsler Intelligence Scale for Children, and norms from the word fluency section of the Primary Mental Abilities Test.

After being told what score the average youngster entering sixth grade got in a specific area, these students were asked to estimate what score they would get. These estimates were collected, the tests given, and actual performance compared with predicted performance. The difference between the two is indicated by a discrepancy score.

How Good Were They at Predicting?

Mean discrepancy scores for boys and girls in each area are shown in table 13.

TABLE 13
Aspiration and Performance
Mean Discrepancy Scores, *t*'s and Levels of Significance

Area	Subjects	Mean Dis. Score	<i>t</i>	Level of Significance
General Information	Boys — Non-Graded	2.8	1.17	Not significant
	Boys — Graded	2.4		
	Girls — Non-Graded	2.4	.93	Not significant
	Girls — Graded	4.0		
Spelling	Boys — Non-Graded	8.0	.63	Not significant
	Boys — Graded	9.4		
	Girls — Non-Graded	7.2	2.49	Significant at 5% level (almost 2%)
	Girls — Graded	10.3		
Arithmetic	Boys — Non-Graded	7.5	1.36	Not significant
	Boys — Graded	10.7		
	Girls — Non-Graded	5.6	2.10	Significant at 5% level
	Girls — Graded	9.0		
Word Fluency	Boys — Non-Graded	2.8	.42	Not significant
	Boys — Graded	4.2		
	Girls — Non-Graded	6.7	.25	Not significant
	Girls — Graded	4.2		

N (boys) = 21

N (girls) = 26

N (total) = 47

In all cases, except word fluency for the girls, students in the non-graded school were more realistic in evaluating what they could do than were students in the conventionally graded school. In two instances (spelling and arithmetic for girls) these differences were significant at the 5% level or better.

Word fluency was included in this measuring instrument because it was felt that it would provide a relatively unstructured situation in comparison to spelling and arithmetic, and might produce some atypical results. It did. Scatter diagrams show a strong regression toward the mean and a high negative correlation ($-.83$ for girls, $-.59$ for boys) in this area, indicating that in this relatively unstructured situation, subjects were highly dependent on the suggested mean for making their estimates. Where they had no previous-

by established guidelines or self-concepts based upon experience, the students tended to identify with the suggested mean.

In the case of the non-graded girls and their estimate of how well they would do in a non-structured situation, their estimate was very poor because they actually *did* so well. Having no definite basis for judging themselves, they tended to consider themselves as pretty much average. This was realistic on the basis of general experience but a gross underestimate in this case. This was the one area in which they were truly above average. One might ask if there is any connection between their ability to do so well and the fact that they have had a different school climate in which to work? Does this type of school climate tend to free students to achieve in areas not directly related to specific school subjects?

Scatter diagrams were also made for arithmetic, spelling, and general information, but they showed no noteworthy relationship to the suggested mean indicating that in other tasks the children apparently were not influenced by the mean. They were all poor spellers and everyone seemed to be aware of that fact — very realistic!

Was there a difference between the two groups in the manner in which they over- or underestimated? The direction of the discrepancy scores is shown in table 14.

TABLE 14
Direction of Discrepancy Scores

Area	Subjects	Mean Disc. Scores (using sign)	t	Level of Significance
General Information	Boys — Non-Graded	+0.8	1.13	Not significant
	Boys — Graded	+2.0		
	Girls — Non-Graded	+2.0	3.16	Significant at 1% level
	Girls — Graded	-1.8		
Spelling	Boys — Non-Graded	-6.1	1.98	Not significant
	Boys — Graded	+1.2		
	Girls — Non-Graded	-2.5	1.91	Not significant
	Girls — Graded	+3.3		
Arithmetic	Boys — Non-Graded	+5.5	.60	Not significant
	Boys — Graded	+7.3		
	Girls — Non-Graded	+3.8	.95	Not significant
	Girls — Graded	+1.2		

Word Fluency	Boys — Non-Graded	-0.9	.89	Not significant
	Boys — Graded	+0.7		
	Girls — Non-Graded	-5.0	3.94	Significant at 1% level
	Girls — Graded	+0.2		

N (boys) = 21

N (girls) = 26

N (total) = 47

The boys in the non-graded school showed no significant differences from their partners in the direction of their estimates. They over- and underestimated their performances in just about the same manner. This was also true of the girls as far as spelling and arithmetic (two subjects closely associated with specific school learnings) were concerned. In the areas of general information and word fluency, however, the girls differed significantly from their match-mates. They were too optimistic in general information and overestimated themselves. In the chapter dealing with achievement it has already been noted that the girls' achievement in this area was not in line with other factors. In word fluency the more intelligent girls were most influenced by the mean, but they actually achieved so well that they have abnormally high discrepancy scores. These girls did very well but apparently were not aware that they could do so well in an unfamiliar situation. They usually were about average (judging from other standard achievement test scores), and it was therefore sensible for them to estimate that they would do average. As Sherif and Asch have shown, when there is no basis for making personal judgment, there is a tendency to associate with the norm.

Summary of Level of Aspiration Study

All students finishing three years in the non-graded, developmental guidance oriented school program were matched with students from other schools in the district on the basis of C.A., sex, and ability. Statistical analysis of differences between predicted and actual performance in four areas showed:

1. In all cases except word fluency for the girls, students in the non-graded school were more realistic in predicting what they could do.
2. In an unfamiliar and relatively unstructured situation there was a strong regression toward the suggested mean in both groups.

3. In a familiar situation the men exerted little or no influence.
4. Girls in the non-graded school achieved unusually well in the area which was least associated with school learning.

The data is not extensive, and experimental conditions fall short of perfection, but there does appear to be some evidence to support the hypothesis that the school climate which is guidance oriented and does not have artificially imposed grade norms by which success or failure is determined tends to produce students who have a more realistic concept of their own capability in school-associated tasks.

The relationship between school practices and the development of a self-concept and level of aspiration is an area worthy of more extensive study.

Chapter

6

Other Guidance Practices

It is not the specific tools and techniques used in developing a guidance program which are important. These will vary from one school situation to another and from one guidance worker to another. They must be tailored to the individual school. The underlying philosophy upon which these practices are built is, however, highly important.

"Guidance in elementary schools is an outgrowth of the mental hygiene movement, improved methods of educational measurement, the child-study movement with its emphasis upon the theories underlying human growth and development" (2). From the viewpoint of classroom guidance and work with parents there is much to be challenged by and at the same time much to be cautious about in that statement.

An experimental school situation, where conventional ways of doing things are discarded and new techniques are being tried and evaluated, makes many unusual demands upon the staff. Soul-searching is the order of the day. How do you really feel about some of the basic issues? What about the role of intelligence? Which is more important, nature or nurture? What about home influences? Does a teacher have a chance with children who come from "homes like that"?

Every teacher has in the course of her professional training become familiar with these issues, but all too frequently rumor and tradition become her patron saints as she works year after year with her students and her colleagues. This can become a fairly comfortable arrangement especially when administrative devices such as

graded classrooms, teaching devices in the form of graded textbooks and teachers' manuals, and guidance devices in the shape of standardized tests with national norms are all readily available. You don't really have to take a good look at a child. You just take him in, put him in the class where he should be according to his birthday, expose him to the prescribed course of study, have him tested to see how he measures up, and then in accordance with school policy either send him on to the next grade or have him run through the same procedure again.

Non-grading and the introduction of developmental guidance shatters this. You just about have come face-to-face with the child himself. While guidance can help this relationship become a truly constructive one, there is the ever-lurking danger that under the new regime we substitute the "facts of child development" and the superficial gimmicks of "good mental health practices" for the automatic grading and curriculum practices and again retreat from actually coming to grips with the job at hand. Guidance does not offer a socially acceptable excuse for establishing low goals. It is not a screen behind which sloppy work is to be condoned. "Give everybody good marks. We mustn't let them think they are failures." (She heard of reinforcement theory and also about self-concepts.) "He has an I.Q. of 91; I just can't expect to teach him very much." (She just finished reading the report of a psychological examination.)

It is a truism to say a little knowledge is a dangerous thing. In this case it might better be said that just having information is not enough. One needs to know how to make practical use of this information. The bridge between the psychologist's world and the teacher's world is still shrouded in considerable fog. Publications such as Symonds' *What Education Can Learn from Psychology*, Jersild's *When Teachers Face Themselves*, and more recently Goodwin Watson's *What Psychology Can We Trust?*, while not the weighty tomes which customarily are used as texts in the educational psychology courses which most teachers have, actually do a great deal to penetrate this fog.

Before a developmental guidance program can really function in an elementary school, the teachers who are in the central role in such a program must have developed a basic philosophy upon which specific practices can be built. How about this question of measured intelligence; how good is it for predicting success in school? What about home influences and the importance of pre-school experi-

ence? Is it hopeless for a teacher to try to overcome such handicaps? Miller, speaking of the training of guidance personnel says they "must achieve an integration of understandings along with development of skill in techniques" (1). The same holds true for teachers. Time is of the essence. Teachers need time to plan, and time to think, and time to integrate their work.

Some practices which we found valuable in working with teachers were:

Regularly Scheduled Conferences

A substitute teacher was in the school each Tuesday. During this time each teacher had a private conference with the project director. These were regularly scheduled whether or not the teachers had problems. Teachers did not have to decide that something was serious enough to warrant further discussion and then make an appointment, nor were they conspicuous because they came to the guidance office. Everyone came. It was the strong feeling of both the teachers and the project director that this was very valuable in catching small problems with individual children before they had a chance to become bigger problems. It was also a good mental health procedure for the teachers, and many used it in connection with their own personal problems which were only incidentally related to specific school problems.

Weekly In-Service Training Sessions

These were held with all the teachers as a group. Although originally scheduled to study curriculum adjustment and techniques of evaluation, these goals were only partially met. Departmentalization and the very rigid groupings which had been established the previous summer became increasingly objectionable as it became more evident that these groups were to remain intact and that suggested changes would not be implemented. Many in-service sessions were devoted to dealing with some of the frustrations brought about by this departmentalized level grouping. There were occasions when these meetings were more group therapy sessions than in-service training sessions. While this didn't particularly help develop curriculum or evaluation techniques (as originally planned) such therapy sessions may be regarded as a legitimate guidance tool, and certainly served a very real purpose in our situation.

Child Study Conferences

Regularly scheduled child-study conferences were held with the entire staff. These were very valuable not only for the help which might be given to the student being studied, but also because they afforded teachers an opportunity to see the child from many angles. Teachers who had had children in first or second grade many times supplied, extemporaneously, very revealing glimpses of a particular child at an earlier period and contributed greatly to the understanding of the child.

Day-to-day work with the child is one thing, evaluating progress and reporting to parents is another. Strang states, "Teachers' marks and other means of evaluating pupil progress are important because they have important effects. They influence a pupil's idea of himself" (3).

They also reveal some of the teacher's ideas about what is important. In our school there was a considerable amount of testing, and fairly elaborate record keeping. We reported to parents in written reports, in parent conferences, and at the end of the year with the regulation report cards used throughout the district. A study was made of the marks given, intelligence test scores, growth as measured by achievement test scores at the beginning and again at the end of the school year, and teacher comments on reports to parents and cumulative folders.

Among the first year students there were six who scored in the Bright Normal range of intelligence. Although teachers were fully aware of the ability of these children, there was no tendency to give specific marks (either high or low) because of it. There was also no apparent relationship between actual level of academic achievement and marks given or progress made during the year and marks given. There was a tendency to give weight to social and emotional factors. Family background, how much the child knew when he came to school, and his leadership qualities appear to have been important in teacher evaluation of first year students.

Marks for the Dull Normal children ranged from "A" to "E" with a predominance of "C's." Dull Normal children who want to get good marks apparently should: be girls; attend school regularly; be quiet, helpful, and mannerly; and try hard.

An examination of the data concerning ten youngsters who had made the most progress in the R-A-L skill areas during the year again showed no relationship between unusual progress and marks. The data does, however, hint at the possibility that teachers may

have a tendency to assign to individual children the personality and achievement characteristics of the group of which they were a part.

This whole subject of teacher evaluation of pupil progress and reporting to parents needs much careful attention, for as Dr. Strang says marks are important "because they have important effects" (3).

Work with Parents

Work with parents is an important function of guidance at the elementary level. Good communication with parents in explaining school program and the individual progress of the specific child as the school sees it cannot be emphasized too strongly. Working with parents whose children are about to enter school is also very important and an area which we found especially rewarding.

Whether it is work with parents of children already in school or with parents who are getting their children ready for school, the educator is again faced with the need for clear guidelines in his thinking. We so frequently search for a tool, a device, or some mechanism. It may be a special kind of report card, a series of parent teas, a pre-school orientation program, or some other procedure which appears to be effective. Whatever the procedures used, it is the basic attitude and philosophy which permeates these relations with parents which will have the greatest influence. It seems that here lies a trap to which the "developmental guidance" person is especially susceptible. There is a strong tendency for this kind of guidance to imply that growth and change and development are pretty much automatic, universal, and in an upward direction. "Children that age are like that." "Don't worry, he'll out grow it." "Oh, yes, he'll catch up. Don't worry. The _____ year is frequently a bad one. Don't worry, it will all work out all right." Don't worry. Don't be concerned. We know all or most of the answers. This merely gives parents the license to abdicate and turn over to the school far more responsibility than need or should be. No wonder these parents who have been lulled into a sense of false security regarding their children's development are highly upset when junior reaches junior high school and news comes home that he is reading at third grade level. He was supposed to out grow that!

The publication of a *Parents' Handbook*, which was later revised and distributed on a state-wide basis under the title *Your Junior Spaceman*, together with the pre-school orientation workshops which were held in the spring we found to be especially valuable guidance tools and techniques.

After six weeks of school in the fall, teachers reported that there was noticeably better understanding, especially among the parents of first graders, of what to expect from their children and from the school than they had ever had before. As one teacher referring to relations with parents expressed it, "Now we seemed to be speaking more the same honest language and are sharing responsibility rather than blaming one another."

The general philosophy underlying this handbook is expressed in the introductory section:

Readiness doesn't just happen. It is a combination of growth, achievement, maturity, and needs. You as a parent have been very important in providing the readiness which your child has as he enters school. You will continue to be important as he gets ready for each new step along the way.

Specific suggestions which might be helpful in establishing readiness in reading, arithmetic, and writing are given; as well as general suggestions in answer to the question, "What can I do to help my child in school?"

There has been a great demand for parent study groups, especially from parents of children in primary school who want to study and discuss children's educational and emotional problems.

The importance of home-school relations has been pointed out many times. It is especially important when new or unconventional programs are launched. Parents may say, "Yes, yes" to educational philosophy which sounds good, but they still want to know quite specifically "Where is my child?" "How is he doing?"

The educational level of the parents and how important they feel it is to have better schools both will have considerable influence on their ability to understand, accept, and support new and unconventional programs.

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Appendix

APPENDIX A

Instructions for Administering Level of Aspiration Measures

"You are here this morning to give us some information about yourself. This is not a test. It may seem more like a guessing game. It really is a way of measuring how well you know yourself. There are four parts to it. The instructions are the same for each part. While this is not a test, and you will not get marked on it, it is important that you do your best—both in estimating or guessing how many questions you will get right and in answering the questions themselves. In each case the questions start out easy and get harder as you go along. Some of the beginning ones may seem really silly to you!"

DISTRIBUTE GENERAL INFORMATION PAPERS

"You have been given a small slip of paper which says, 'General Information.' Before we give you the sheets with the questions on them, we want to tell you that there are twenty short questions and that most young people beginning sixth grade get sixteen of them right. On this slip of green paper I want you to put down how many you think *you* will get right. Make the best guess you can. Remember, these are questions of general information; and most people your age get sixteen right . . . Have you all put down a good, intelligent guess of how many you expect to get right? Now print your name on the bottom line."

HAVE THESE SLIPS COLLECTED AND THE QUESTION SHEETS FOR GENERAL INFORMATION DISTRIBUTED

"Print your name on the top of these sheets. You are not being timed on this but work as quickly and efficiently as you can. If you don't know the answer to one question, either make the best guess you can or skip it and go on to the next. Only right answers will be counted, so it is to your advantage to guess if you don't know."

GIVE TIME TO COMPLETE — APPROXIMATELY
FIVE MINUTES

"Be sure your names are on your papers."

HAVE GENERAL INFORMATION QUESTIONS COLLECTED
AND ARITHMETIC ESTIMATES DISTRIBUTED

"Now you can try some arithmetic. Most young people starting sixth grade get twenty-nine of these right. How many do you think you will get right? Remember, this is in arithmetic. Be sure you print your name at the bottom of your slip."

COLLECT SLIPS. HAVE WRAT FORMS DISTRIBUTED

"Put your name in the space marked name. Now open your booklets. The inside has the arithmetic part. Notice that all the problems in the first section are addition, all the problems in the second section are subtraction, etc. SHOW HOW IT GOES ACROSS THE PAGE. In each case these start out easy and get harder. Do as many as you can. There is no time limit but work along as efficiently as possible."

WHEN IT APPEARS THAT THEY HAVE GONE AS FAR
AS THEY CAN, SAY . . .

"Now turn to the front of this booklet. Be sure your name is in the place for name."

DISTRIBUTE PINK SLIPS FOR SPELLING ESTIMATES

"We are now going to have some spelling words, and you can write them on the front page of this booklet. Before you do that, I want you to put down how many spelling words you expect to get right. You have been given some little pink slips. Most young people starting sixth grade get forty-nine of these words right; how many do you think you will get? Put the number on this paper. Print your names."

HAVE SLIPS COLLECTED
BEGIN DICTATING THE SPELLING LIST. CONTINUE AS
LONG AS PEOPLE ARE STILL SUCCESSFUL IN GETTING
THE WORDS.

COLLECT WRAT FORMS; DISTRIBUTE WORD SLIPS

"Now I have one more. This one is really different. I am going to give you a letter and I want you to write all the words you can think of that begin with that letter. Spelling and writing *do not* count on

this one. I just want to see how many words you can think of. Before I tell you the letter, I will tell you that most young people beginning sixth grade can think of ten words. How many do you think you can think of? Put down that number. Print your name on the bottom of the slip."

**COLLECT SLIPS AND DISTRIBUTE PAPERS FOR
LISTING WORDS**

"You will have two minutes to think of and write down words. First put your name on the paper . . . By way of warning — Don't write the same word twice. They must be all different words. Plurals (just adding "s") don't count; and neither do "ing" or "ed" added to a word you have already listed. Are there any questions? . . . Okay, ready. You will have two minutes . . . (wait time) . . . The letter is s. You may begin writing."

COLLECT PAPERS AT THE END OF TWO MINUTES.

APPENDIX B
Forms Used in LOA Study

(Green)

GENERAL INFORMATION

Most beginning sixth graders
get 16 right.

I think I will get _____ right.

Name: _____

(Blue)

ARITHMETIC

Most beginning sixth graders
get 29 right.

I think I will get _____ right.

Name: _____

(Pink)

SPELLING

Most beginning sixth graders
get 49 right.

I think I will get _____ right.

Name: _____

(Yellow)

WORDS

Most beginning sixth graders
can think of 10 words.

I think I will get _____

Name: _____
